

Application Number: 09/830,894
Amendment Dated: July 7, 2005
Reply to Office Action Dated: April 7, 2005

REMARKS

This amendment is responsive to the Office Action dated April 7, 2005 for which a response is due on July 7, 2005. A fee calculation sheet is enclosed in order to show that no additional claim fees are due.

Claims 1 through 4, 6 through 34 and 70 are pending in the present application upon entry of this amendment. Withdrawn claims 35 through 69 and 71 through 104 have been cancelled. The Applicant reserves the right to file one or more divisional cases, at a later date, directed to non-elected claims 35 through 69 and 71 through 104. Claims 105 through 112 have been added. Support for newly added claims 105 through 112 can be found in the specification as filed.

Claims 1, 2, 10, 27, 31 and 70 have been amended. Claim 1 has been amended to state that a biological product is produced and that said biological product is recovered.

Claim 1 has also been amended to address the 35 U.S.C. § 112, first paragraph rejection to the phrase defining "a maximum oxygen replenishment rate". Specifically, the definition has been deleted from claim 1. Given that one off ordinary skill in the art would, upon reading and understanding the specification as filed, be able to determine the meaning of the phrase "a maximum oxygen replenishment rate to the culture medium, the definition in claim 1 was deemed unnecessary. Accordingly, in view of the disclosure contained in the specification and the current wording of claims 1 and 70, the 35 U.S.C. § 112, first paragraph rejection of claims 1 through 4, 6 through 34 and 70 has been rendered moot. Therefore, withdrawal of the 35 U.S.C. § 112, first paragraph rejection and entry of the amendments to the claims is respectfully requested.

With regard to the 35 U.S.C. § 112, second paragraph rejections of claims 1 through 4, 6 through 34 and 70, these rejections have also been rendered moot in light of the amendments made to claims 1, 2, 10, 27, 31 and 70. Accordingly, withdrawal of the 35 U.S.C. § 112, second paragraph rejections of claims 1 through 4, 6 through 34 and 70 is respectfully requested.

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The Examiner has rejected claims 1 through 4, 10, 16 through 19, 21, 28, 31 through 34 and 70 under 35 U.S.C. § 102(b) over Robertson et al. (Applied and Environmental Microbiology, November 1988, pp. 2812 – 2818). Robertson et al. relates to a study of simultaneous heterotrophic nitrification and aerobic denitrification in *Thiosphaera pantoropha*.

As would be apparent to one of ordinary skill in the art, upon reading and understanding the study presented in Robertson et al. one of ordinary skill in the art would recognize that Robertson et al. fails to disclose or suggest the process of pending claim 1. This is because Robertson et al. is not concerned with the production and recovery of a biological product, but rather with determining if it was possible for *Thiosphaera pantoropha* to corespire.

Since Robertson et al. fails to disclose each and every aspect of claim 1, Robertson et al. fails to anticipate claims 1 through 4, 10, 16 through 19, 21, 28, 31 through 34 and 70. Accordingly, withdrawal of the novelty rejection of claims 1 through 4, 10, 16 through 19, 21, 28, 31 through 34 and 70 is believed due and is respectfully requested.

Claims 1 through 4, 6 through 34 and 70 have been rejected under 35 U.S.C. § 103(a) over Robertson et al. in view of Wendt et al. (U.S. Patent No. 3,939,068), Brock et al. (Biology of Microorganisms, 3rd Edition, Prentice-Hall, Inc. 1979), and Wagner et al. (U.S. Patent No. 4,814,272). Robertson et al. is discussed above.

Wendt et al. relates to a process for treating waste water containing cellulose nitrate particles. The process disclosed in Wendt et al. involves the use of a microorganism to denitrify waste water. Wendt et al. is not concerned with, nor does it disclose, teach or suggest, a process to produce and recover a biological product from a microorganism that utilizes both aerobic and anaerobic respiration. Accordingly, Wendt et al. fails to cure the deficiencies of Robertson et al.

Brock et al. is a text book that, among other things, discusses anaerobic respiration in microorganisms. As such, Brock et al. is not concerned with, nor does it disclose, teach or suggest, a process to produce and recover a biological product from a microorganism

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that utilizes both aerobic and anaerobic respiration. Accordingly, Brock et al. fails to cure the deficiencies of Robertson et al.

Wagner et al. relates to the production anionic rhamnolipids via the use of a microorganism. However, as is disclosed in Wagner et al., the process disclosed therein is solely based on aerobic respiration. As such, Wagner et al. fails to disclose, teach or suggest a process to produce and recover a biological product from a microorganism that utilizes both aerobic and anaerobic respiration. Accordingly, Wagner et al. fails to cure the deficiencies of Robertson et al.

Given the teachings contained in Wendt et al.; Brock et al.; and Wagner et al., the combination of Robertson et al. with any one or more of Wendt et al.; Brock et al.; and Wagner et al. fails to render obvious claims 1 through 4, 6 through 34 and 70. Accordingly, withdrawal of the obviousness rejection of claims 1 through 4, 6 through 34 and 70 is believed due and is respectfully requested.

For the foregoing reasons, the rejections under 35 U.S.C. §§ 102(b), 103(a), and 112, first and second paragraphs, are believed to be unfounded. Accordingly, withdrawal of the pending rejections and allowance of the pending claims is respectfully requested.

Should the Examiner wish to discuss any of the foregoing in more detail, the undersigned attorney would welcome a telephone call.

Respectfully submitted,


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